

### Conclusions

1. It is probable that all species of the genus *Callibaetis* are ovoviviparous.

2. Longevity is necessarily correlated with ovoviviparity in the order Ephemeroptera.

3. The sexual ratio of an ovoviviparous species of Ephemeroptera is abnormal due to the longevity of the female and the comparatively short life of the male.

### REFERENCES CITED

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## Two New Centipeds from Trinidad

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The types of the two new centipeds described in this article are part of a collection made by A. H. Strickland on Trinidad in the period from Nov. 23, 1943, to Mar. 1, 1944. This collection was sent for identification by Mr. C. F. W. Muesebeck of the U. S. Bureau of Entomology and Plant Quarantine. The types of the new species are at present retained by the author.

In addition to the new forms here described there were in the collection specimens of *Lamyctinus coeculus* Brolemann (St. Augustine), *Lamyctes* sp. (St. Augustine), and *Ityphilus guianensis* Chamberlin (Sangre Grande), and of the millipeds *Siphonotus purpureus* Pocock and *Docodesmus trinidadensis* Chamberlin.

### *Newportia oligopla*, new species

Cephalic plate with two fine longitudinal sulci diverging for-

ward from caudal margin as shown in the figure. (Fig. 1.) Antennae compound of 17 articles; the first two articles and most of the third sparsely setose, the remaining articles, including distal portion of the third, more densely clothed with fine short hairs.

Basal plate with a transverse semicircular sulcus which is somewhat angled at the middle where there is a pit-like depression. Paired longitudinal sulci run from the caudal margin forward, each furcate behind the transverse sulcus at which the branches

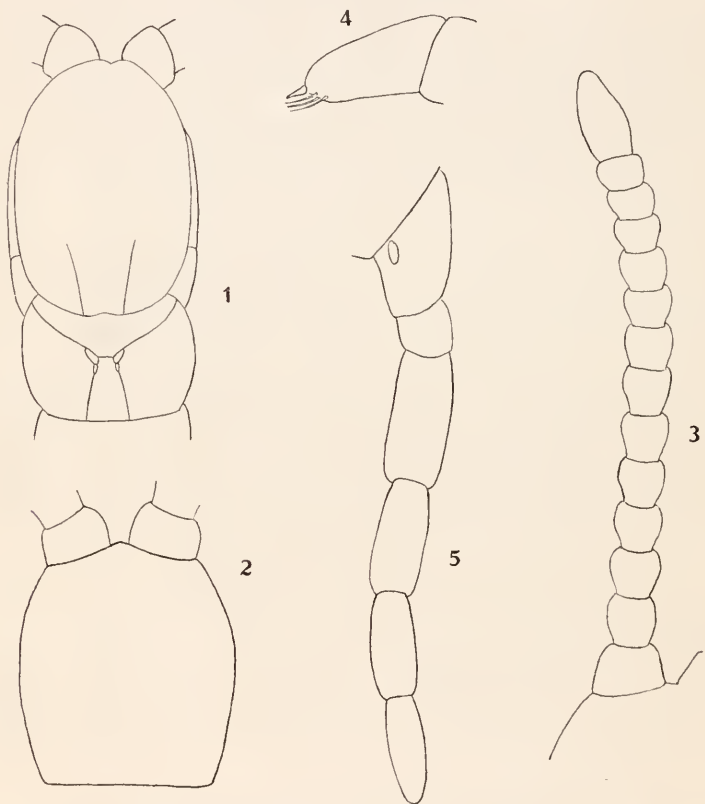


Figure 1. *Newportia oligopola*. Figures 2, 3, 4 and 5. *Leucolinum trinidadense*.

end. (See fig. 1.) Paired longitudinal sulci present on tergites from the second to the twenty-second inclusive.

Prosternal margin with a narrow, gently convex rim on each side, the two halves meeting in an obtuse, reentrant angle at the middle. A single seta a little caudad of the margin on each side. Claws of normal size.

Tarsi of anterior legs not divided. Tibiae of anterior legs with a spine at distal end in anterodorsal position, but with no ventral spine.

Pseudopleural processes moderately long and slenderly acuminate, each terminating in a single point or spine, and with no lateral spine. Poriferous area large, reaching to tergite on each side.

Femur of anal legs with a series of four stout teeth below. Patella with a single tooth at base on mesal side and a much smaller one on ventral face distad of middle. Tibia unarmed, much thicker than first article of tarsus, in length about equal to the first article of the tarsus. Tarsus clawless, composed of eleven long articles of which all but the first are subequal in length, the first decidedly thicker than the others and about equal in length to two and a half of those following it.

Length of largest specimen, 26 mm.

Locality—TRINIDAD, B. W. I.: St. Augustine, in soil of Savannah land, taken between 23rd Nov., 1943, and 1st Mar., 1944.

Distinguished from other species in which the cervical sulcus is angled and has a pit at middle in having no ventral spine on anterior tibiae and tarsi and in having four teeth on the femur.

#### Genus *Leucolinum*, new

This genus is placed tentatively in the Ballophilidae along with the apparently related and imperfectly known *Taeniolinum*, occurring on St. Vincent. It agrees with the latter genus in having the ventral pores diffuse instead of concentrated in a sharply limited circular or oval area. It is readily distinguished from *Taeniolinum* in having the antennae slender and filiform

instead of short, thick and attenuated. The Panamanian *Lep-tynophilus* also agrees with these two genera in having non-clavate, non-geniculate antennae but differs in having its ventral pores in a sharply defined elliptic area. *Leucolinum* agrees with other members of the family in having the labral margin smooth and wholly lacking teeth over the median arc. Last ventral plate broad.

Coxopleurae each with a single pore. Anal legs clawless. *Genotype*: *Leucolinum trinidadense*, new species.

### *Leucolinum trinidadense*, new species

This is a pale, almost white, soil-dwelling form.

Head and antennae of forms shown in figs. 2 and 3. No frontal suture evident. Palpi of second maxillae with claws reduced as shown in fig. 4.

Prebasal plate not exposed.

Prehensors with joints unarmed; claws rather small, unarmed, when closed scarcely exceeding the anterior margin of head. Chitinous lines not apparent on the prosternum.

Dorsal scuta bisulcate.

Ventral plates with not definitely defined porigerous area.

Anal legs clawless; the articles proportioned as shown in fig. 5.

Last ventral plate broad. Coxopleurae each apparently with a single pore of moderate size, the limiting rim of which is not sharply sclerotized.

Pairs of legs, 37.

Length, 9 mm.

Locality—TRINIDAD: St. Augustine. Several specimens taken in soil ("detrital silt") from Savannah land between the 23rd of November, 1943, and the first of March, 1944. Collector, A. H. Strickland.